AMENDMENTS TO THE CLAIMS

Please cancel Claims 14, 16, 19-24 and 26 without prejudice, amend Claims 1-13, 15, 17, 18 and 25, and add Claim 27 as follows:

1. (Currently amended) A tumor cell ~~composition of matter~~ comprising a vaccinia virus expression vector with a negative thymidine kinase phenotype and a negative vaccinia virus growth factor phenotype, wherein said tumor cell is present in a mammal.

2. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said vector ~~composition~~ further comprises an exogenous nucleotide sequence.

3. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative thymidine kinase phenotype results from a vaccinia virus thymidine kinase gene containing a deletion of nucleic acid sequence.

4. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative thymidine kinase phenotype results from a vaccinia virus genome from which a thymidine kinase gene is deleted.

5. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative thymidine kinase phenotype results from a vaccinia virus thymidine kinase gene containing an insertion of nucleic acid sequence.

6. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative thymidine kinase phenotype results from a vaccinia virus thymidine kinase gene containing a substitution of nucleic acid sequence.

7. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative vaccinia virus growth factor phenotype results from at least one vaccinia virus growth factor gene containing a deletion of nucleic acid sequence.

8. (Currently amended) The tumor cell ~~composition~~ of claim 7, wherein said deletion comprises a deletion of the EGF-receptor binding site of said vaccinia virus growth factor gene.

9. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative vaccinia virus growth factor phenotype results from a vaccinia virus genome from which at least one vaccinia virus growth factor gene is deleted.

10. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative vaccinia virus growth factor phenotype results from at least one vaccinia virus growth factor gene containing an insertion of nucleic acid sequence.

11. (Currently amended) The tumor cell ~~composition~~ of claim 1, wherein said negative vaccinia virus growth factor phenotype results from at least one vaccinia virus growth factor gene containing a substitution of nucleic acid sequence.

12. (Currently amended) The tumor cell ~~composition~~ of claim 2, wherein said exogenous nucleotide sequence is selected from the group consisting of tumor suppressor genes, cytotoxic genes, cytostatic genes, cytokines, suicide genes, and antigen encoding genes.

13. (Currently amended) The tumor cell ~~composition~~ of claim 12, wherein said tumor suppressor gene is selected from the group consisting of WT1, p53, p16, Rb, and BRCA1.

14. CANCELED

15. (Currently amended) The tumor cell ~~composition~~ of Claim 1 wherein said vaccinia virus expression vector is produced by a virus particle containing a virus genome, wherein expression of said genome produces a vaccinia virus with a negative thymidine kinase phenotype and a negative vaccinia virus growth factor phenotype.

16. CANCELED

17. (Currently amended) The tumor cell ~~composition~~ of Claim 1, wherein said vaccinia virus expression vector is constructed such that the gene for *E. coli lacZ* is inserted into the thymidine kinase (TK) or virus growth factor (VGF) site ~~VVDD~~.

18. (Currently amended) The tumor cell ~~composition~~ of Claim 1, wherein said vaccinia virus expression vector is constructed such that the gene for enhanced green fluorescent protein (EGFP) is inserted into the thymidine kinase (TK) or virus growth factor (VGF) site ~~VVDDEGF~~.

19. CANCELED

20. CANCELED

21. CANCELED

22. CANCELED

23. CANCELED

24. CANCELED

25. (Currently amended) A product made by the method of ~~Claim 24~~:

providing a vaccinia virus genome and constructing a vaccinia virus expression vector by;

mutating at least one vaccinia virus growth factor gene of said vaccinia virus genome to produce a negative vaccinia virus growth factor phenotype; and

mutating a thymidine kinase gene of said vaccinia virus genome to produce a negative thymidine kinase phenotype; and

introducing said vaccinia virus expression vector into a tumor cell, wherein said tumor cell is present in a mammal.

26. CANCELED

27. (New) The tumor cell of Claim 1 wherein said vaccinia virus expression vector is of the WR strain.